



KBDI TV-12
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December 17, 1997

Secretary
Federal Communications Commission
Washington, DC 20554

RE: MM Docket 87-268
DTV Table of Allotments/ Assignments Submitted by the Association
for Maximum Service Television, Inc.

Ladies and Gentlemen:

Front Range Educational Media Corp. (FREMCO) is the licensee of KBDI, channel 12, Broomfield, CO, serving the Denver and Boulder, Colorado areas.

It is currently assigned channel 36 as its digital channel while KCNC (NTSC channel 4) is assigned DTV channel 35. FREMCO believes it will have substantial difficulty, as explained below, in attempting to serve the western portion of the Denver metropolitan area given the locations of the two NTSC stations and assuming the corresponding DTV stations are constructed at essentially the same sites and on adjacent channels.

All but two of the full service TV stations serving the Denver metropolitan area are on the west side of the area where the terrain rises rapidly into the Rocky Mountains. All of these stations except KBDI are on the near edge of the high terrain directly overlooking the Denver area population. KBDI's site is approximately 15 miles further west back in the mountains to meet the required mileage separation from a cochannel assignment in Lamar, CO.

From this more remote site the KBDI channel 12 signal is attenuated, although not to a degree where it is generally unusable, in the west part of the Denver metropolitan by shadowing from the high terrain nearest Denver where the other TV stations are located. By contrast a DTV station built at the KCNC site will have free space propagation conditions to all of the Denver metropolitan area including the west part.

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Both the DTV channel 35 and 36 assignments are for 1 Megawatt ERP, but in the west area FREMCO's channel 36 DTV signal will have an unfavorable ratio to the DTV channel 35 signal not only from being 15 miles further away but also from the shadowing by the exact high terrain on which KCNC (channel 4) is located (Lookout Mountain) and on which associated DTV channel 35 presumably will be built. This is illustrated by the two attached profiles drawn to the center of Lakewood, a municipality on the west edge of the Denver metropolitan area. Note that both signals will reach the critical area from the same direction so the directional characteristics of receiving antennas will not help the problem.

In summary it appears there will be an unfavorable signal ratio between the channel 35 and 36 signals in a significant area and a considerable portion of the population receiving KBDI's NTSC channel signal will be foreclosed from receiving an interference free DTV channel 35 signal, but that population *could have satisfactory reception on DTV channel 23 which would not have to compete with a stronger adjacent channel signal.*¹ For this reason we urge the Commission to adopt the AMST DTV table for the Denver area.

Respectfully submitted,
FRONT RANGE EDUCATIONAL MEDIA CORP.

A handwritten signature in cursive script, appearing to read "B. W. ST. Clair".

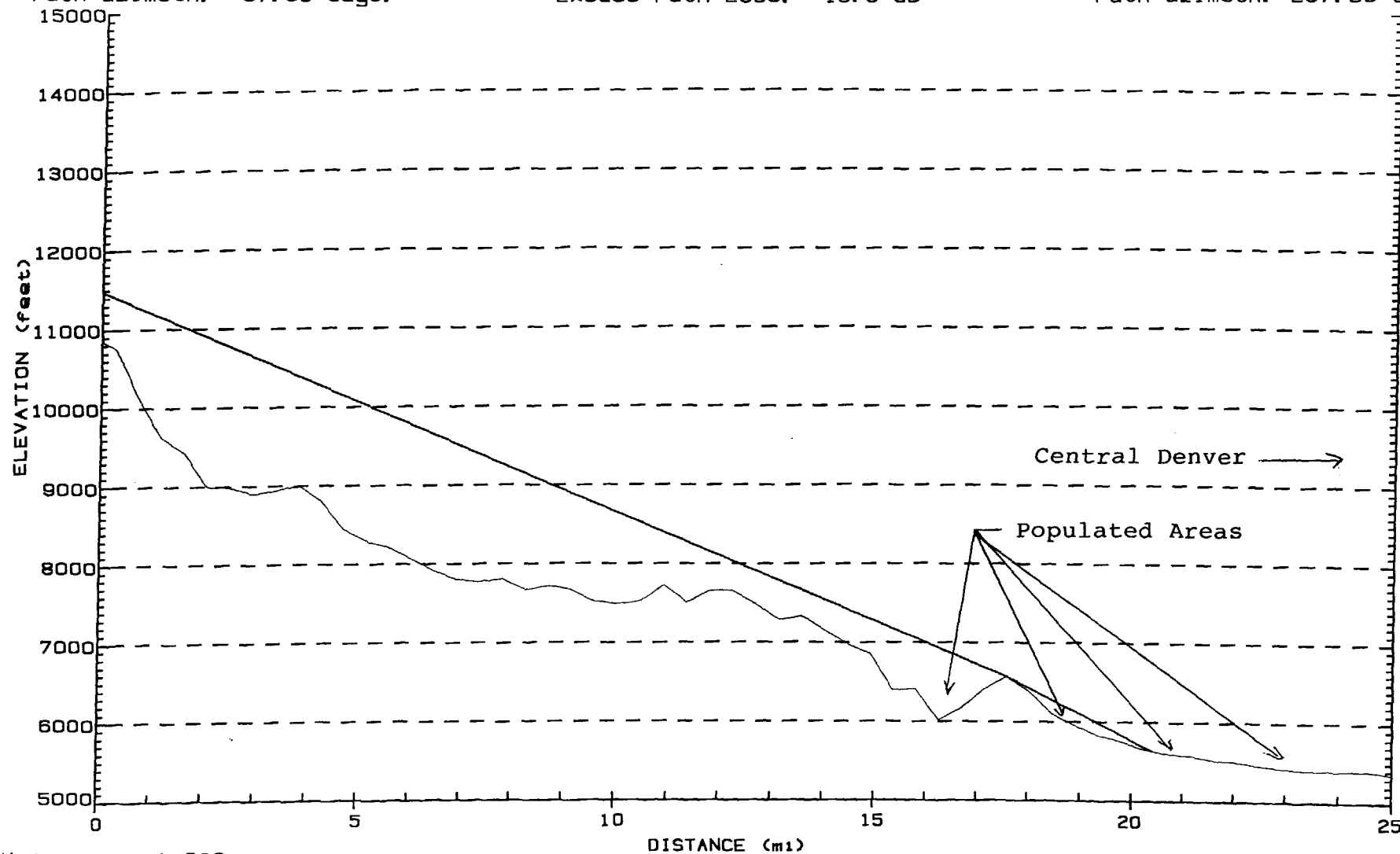
B. W. ST. Clair
Member of the Board of Directors

¹DTV channel 24 is assigned in the AMST table to Colorado Springs, but given the terrain in the area this assignment would not cause interference to or receive interference from a DTV channel 23 station in Denver.

Site: KBDI (Squaw Mt.)
N 39 40 55 W 105 29 49
Ant. Elev. (AMSL): ***** ft
Path azimuth: 87.30 degs.

Frequency: 600.0 MHz
Path Length: 20.4 mi
Total Path Loss: 135.0 dB
Excess Path Loss: 16.6 dB

Site: Lakewood
N 39 41 43 W 105 06 49
Ant. Elev. (AMSL): 5637.3 ft
Path azimuth: 267.60 degs.



K factor: 1.330

30 Second Database
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

B. W. St. Clair
Engineering Consultant

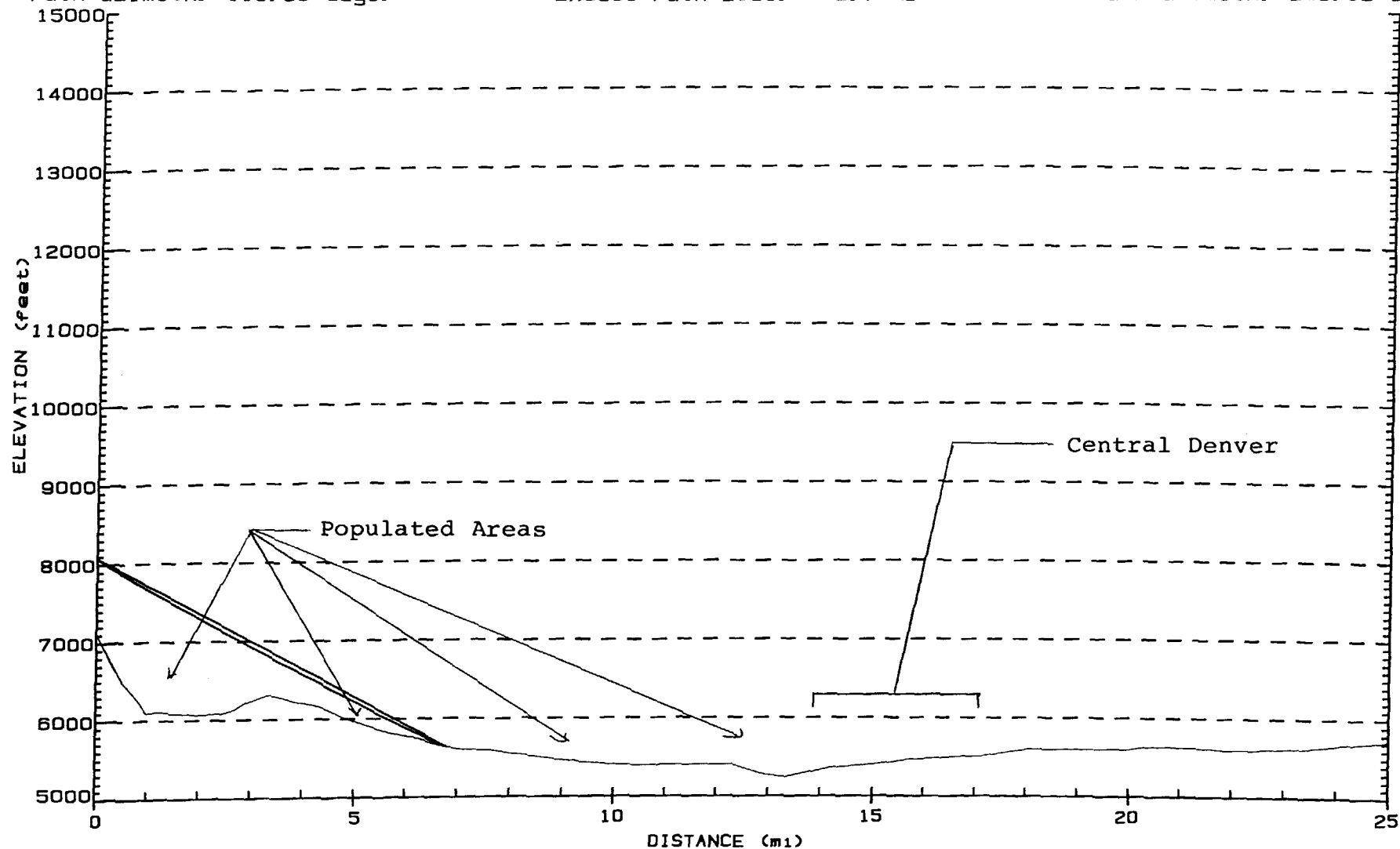
2355 Ranch Drive
Westminster, CO 80234
303-465-5742

Path Profile
KBDI Site to Lakewood, CO
December 16, 1997

Site: KCNC
N 39 43 48 W 105 14 02
Ant. Elev. (AMSL): 8078.1 ft
Path azimuth: 110.53 degs.

Frequency: 600.0 MHz
Path Length: 6.8 mi
Total Path Loss: 111.5 dB
Excess Path Loss: 2.7 dB

Site: Lakewood, CO
N 39 41 43 W 105 06 49
Ant. Elev. (AMSL): 5640.5 ft
Path azimuth: 290.82 degs.



K factor: 1.330
Fresnel Zone: .60
30 Second Database
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

B. W. St. Clair
Engineering Consultant

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Westminster, CO 80234
303-465-5742

Path Profile
KCNC Site to Lakewood, CO
December 16, 1997